Requirements Management

CalWIN

Revised Date: 02/25/00 10:19 AM

RECORD OF CHANGES

Change Number	Brief Description of Change (include page numbers)	Date	Responsible Party
1.0	Created Requirements Management Process document.	02/28/00	PMO

CalWIN Project

Requirements Management Process

Executive Summary

The CalWIN Management Team ('Team') consisting of WCDS CalWIN Management and EDS CalWIN Management jointly developed the Requirements Management Process for the CalWIN Project ('Project'). The major goal of the Requirements Management Process is to ensure that the product and services delivered to the Counties meet their needs and expectations.

The CalWIN Project Requirements Management process provides a standardized approach to planning and tracking requirements management activities, obtaining source information, developing requirements, validating requirements, incorporating allocated requirements, and evaluating and refining the process. In the spirit of the CalWIN Deliverable Development, Review and Approval Process, most of the activities in this process are conducted on an iterative basis until both the Counties and the EDS Project Team are satisfied with the outcome. The activities in the process also include an up-front review by the Product Engineering Group to ensure that the requirements are complete and can be implemented.

The Requirements Management Process will be used for the development of requirements-based deliverables such as the Functional and Technical Requirements; General System Design; and Detailed System Design. This process will also be used to determine requirements for any requested changes outside the original scope of the project, as well as for complex software correction requests.

The iterative approach of the Requirement Management Process with the involvement of both the Counties and the Product Engineering Groups should lead to the delivery of a product that meets the Counties' needs and expectations, as well as the reduction of the risk of schedule slippage due to re-work.

Purpose and Scope

This process is used to establish a set of requirements that accurately describe the product or service to be delivered to the Counties. The requirements management process enables the Requirements Team to determine a complete set of requirements that is built on a common understanding between the Counties and the EDS CalWIN Team. This process provides a framework for communicating with the Counties and the EDS CalWIN Project Teams who will receive and use a requirement statement to build a product or service.

Goals

The goals of this process are as follows:

- To deliver the Voice of the Counties (VOC) in defined requirements and expectations for CalWIN products or services
- To provide leadership and expertise in using the requirements management process and the associated tools and techniques
- To allocate requirements to product or service components and control changes to this established baseline
- To ensure project plans, work products, and activities are kept consistent with allocated product or service requirements

Value

The principal benefit derived by the Counties from effective requirements management is the receipt of a product or service that adds value to their organizations. The delivery of such a product or service is the result of a better understanding of the Counties' needs and expectations. Better understanding results in fewer product or service design and construction errors, thereby lowering or eliminating costs associated with rework. Project estimation does not typically include "rework time." As the effectiveness of the requirements management process improves and the rework associated with faulty requirements decreases, there will be a corresponding increase in the accuracy of estimates of total life cycle cost and schedule.

Applicable Policy, Standards, and References

This process complies with and implements the EDS WCDS CalWIN Requirements Management (RM) Policy. This process also complies with the Software Engineering Institute (SEI) Capability Maturity Model (CMM) for Software, Version 1.1, and implements the intent of the EDS Requirements Determination Process Methods Management Guide.

Description

Requirements Management identifies and tracks what is really wanted, needed, and expected by the Counties. A requirement is a condition that must be met for the Counties to find CalWIN products or services acceptable. An expectation is a condition that must be met for the Counties to be completely satisfied with CalWIN products or services. The ideal set of requirements is solution-independent; that is, stated completely in terms of the Counties' business processes. This gives the Product Engineering Group the greatest flexibility to satisfy the requirements and exceed expectations.

Allocated requirements are those that are to be implemented in the components of the product or service. These include non-technical requirements (i.e., the agreements, conditions, and/or contractual terms) that affect and determine the activities of the project in addition to the technical product or service requirements, and the acceptance criteria for all the requirements.

Activities in the Requirements Management Process are as follows:

1. Plan/Track Requirements Management
2. Obtain Source Information
3. Develop Requirements
4. Validate Requirements
5. Incorporate Allocated Requirements
6. Evaluate and Refine Requirements Management Process

Inputs

Work Product	Source	Status[1]	Internal/ External[2]	Entrance Criteria[3]
Affected Group Plans	Affected Groups	In Progress	External	N
Agreement Documents (i.e. contract)	CalWIN Management Team	Complete	External	Y
Configuration Items	CM Team	In Progress	External	N
Project Control Document (PCD) (includes Project Summary and Scope)	PMO	In Progress	External	Y
Requirement Issues	Requirements Team	In Progress	Internal	N
Requirements Management Database	PMO	In Progress	External	Y

Outputs

Work Product	Recipient	Status[1]	Internal/ External[2]	Exit Criteria[3]
Allocated Requirement	CalWIN Project Team	Complete	External	Y
Deliverable Expectation Document (DED)	WCDS CalWIN Project Manager, CalWIN Project Team	In Progress	External	Y
Implementation Estimates and Resource Requirements	EDS CalWIN Manager	Complete	Internal	Y
Lessons Learned	QA Team CalWIN Project Team	Complete	External	Y
Project Control Document (PCD) - updated (includes Project Summary and Scope)	CalWIN Management Team	In Progress	External	Y
Quality Assurance Review Notice	CalWIN Project Team	In Progress	External	N
Requirement Issues - updated	Requirements Team, Product Engineering Group, Counties	Complete	Internal	Y
Requirement Level of Effort Estimate	EDS CalWIN Manager, Requirements Team, Counties	Complete	Internal	Y
Requirement Relative Importance Rating	EDS CalWIN Manager, Requirements Team	Complete	Internal	Y
Requirement Statement to Configuration Item Mapping	CM Team	Complete	External	Y
Requirement Statement to Statement of Need and Source Information Mapping	Requirements Team	Complete	Internal	Y
Requirement Statements	Requirements Team	Complete	Internal	Y
Requirement Verification Criteria/Procedures	Product Engineering Group, Test Team	Complete	External	Y
Requirements Management Database (updated)	CalWIN Project Team	In Progress	External	Y
Requirements Source Information	Requirements Team	Complete	Internal	Y
RM Metrics	CalWIN Management Team CalWIN Project Team	In Progress	External	Y
Statements of Need	Requirements Team	Complete	Internal	Y
Techniques, Tools, and Standards	Requirements Team	Complete	Internal	Y
Validated Requirements	WCDS CalWIN Project	Complete	Internal	Y

Work Product	Recipient	Status[1]	Internal/ External[2]	Exit Criteria[3]
	Manager, CalWIN Project Team			

[1]Status indicates the work product is either complete upon entry or exit from the process, or in-progress upon entry or exit from the process.

[2]Internal/External - Identifies if the work product is used for this process only (Internal) or used by other processes (External).

[3]An Entrance Criteria of "Y" indicates the work product is required to enter the process. An Exit Criteria of "Y" indicates the work product is required to exit the process.

Roles and Responsibilities

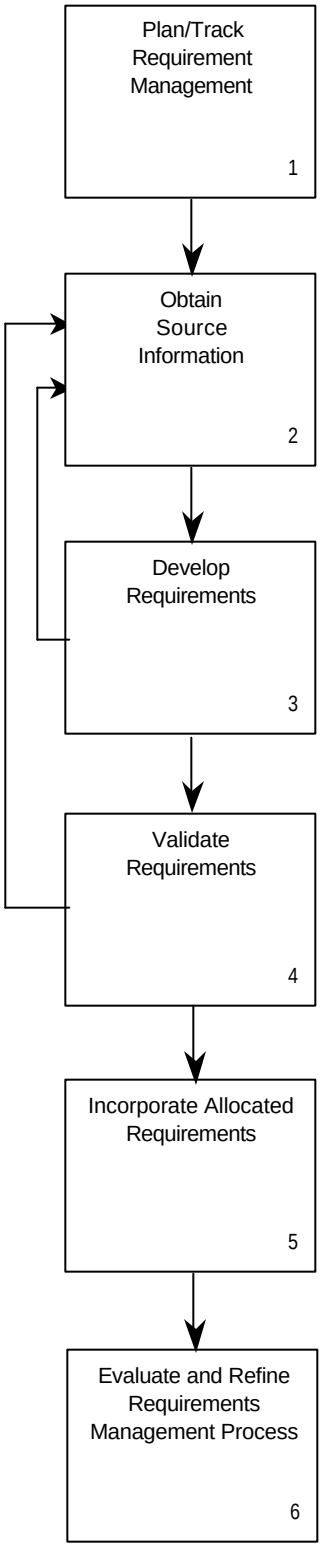
The terms *role* and *agent* are used interchangeably in this process documentation. The agent identified with an asterisk (*) within each of the activity agent listings has the primary responsibility for ensuring the activity is accomplished.

Roles	Responsibilities
CM Team	• Maintains product baselines and releases.
County Representatives	• Provide source information input, priorities, acceptance criteria, and validation.
EDS CalWIN Manager	• Allocates resources, defines releases, and monitors schedule.
EDS Senior Management	• Provides scope and direction concerning areas for defining requirements and facilitates County partnership development.
Product Engineering Group (generic term referring to technical staff on either the Application Services, Technology Services, or Operation Services Teams)	• Reviews requirements, determines estimates of requirement resources and verification criteria.
Program Management Office (PMO)	• Maintains Project Control Document (PCD), Requirements Management Database and Requirements Management Process.
Process Owner (PMO)	• Develops and executes plans for Requirements Management process improvements/upgrades as necessary.
QA Team	• Evaluates requirement statements in regard to criteria. • Conducts periodic Quality Assurance Reviews on the Requirements Management process.
Requirements Team	• Facilitates County input into requirements statements and maintains source information.
Technology Services	• Establishes and maintains the automated tool (see below), maintains the database, and ensures a secure and recoverable environment.
Test Team	• Determines verification criteria.
WCDS CalWIN Deputy Manager	• Assists in the initial planning for requirements management activities.

Tools

Tools	Purpose
Estimating Tool	• To support the development of estimates for the implementation of a requirement statement.
Matrix Facility	• To document the allocation of requirements to components of the products and/or services.
Requirements Management Database (See Appendix A) and Project Repository	• To maintain source information, presentation materials, points of contact, requirements changes, history, and the allocated requirements statement.

Process Flow



1.1 Allocate EDS RM resources
1.2 Identify County resources
1.3 Determine techniques, tools, and standards
1.4 Identify out-of-scope issues
1.5 Determine evaluation parameters
1.6 Build plan
1.7 Review plan with County management
1.8 Manage plan

2.1 Confirm information-gathering techniques
2.2 Execute information-gathering techniques
2.3 Maintain obtained information

3.1 Extract requirements
3.2 Determine appropriateness of requirements
3.3 Ensure consistency and completeness
3.4 Define verification criteria (conditional)
3.5 Determine relative importance of requirements

4.1 Determine requirements to be validated and determine participants
4.2 Determine levels of detail
4.3 Confirm validation techniques
4.4 Perform validation

5.1 Determine estimate of resources
5.2 Determine configuration item impacts
5.3 Log validated requirement to requirements management database
5.4 Allocate validated requirement to appropriate work product (DED)

6.1 Evaluate lessons learned
6.2 Implement process improvements
6.3 Audit the process

Activities

1. Plan/Track Requirements Management

Purpose To develop a specific approach and resource assignments for determining requirements and then manage according to the approach.

Description Planning and tracking requirements management (RM) involves allocating resources to perform RM activities; establishing a partnership between the Counties and the EDS CalWIN Project Team; determining the RM techniques, tools, and standards; establishing RM process metrics; and incorporating and tracking RM activities in the Project Control Document (PCD).

1.1 Allocate EDS RM resources

Allocating RM resources involves the EDS CalWIN Manager defining project RM roles and responsibilities, assessing the skills of project team members and assigning project team members with the appropriate level of industry experience to the Requirements Team in order to perform RM activities.

1.2 Identify County resources

Identifying County resources involves the EDS CalWIN Manager and Requirements Team meeting with the WCDS CalWIN Deputy Manager to review the project scope and establish the appropriate County points of contact. These County resources provide specific business knowledge to describe the need for the project product or service, statements of business need, and expectations.

1.3 Determine techniques, tools, and standards

Determining techniques, tools, and standards involves the EDS CalWIN Manager and Requirements Team meeting with the WCDS CalWIN Deputy Manager, reviewing project funding for support tools, selecting techniques and tools, scheduling any required County and CalWIN Project Team training, and establishing the template for the requirements statement.

1.4 Identify out-of-scope issues

Identifying out of scope issues involves the EDS CalWIN Manager and Requirements Team meeting with the WCDS CalWIN Deputy Manager to identify any known issues which are out of the scope and control of the County Representatives identified for information-gathering sessions. These issues will be recorded for future resolution and provided at the information-gathering session(s) so that time and energy is not expended in these areas.

1.5 Determine evaluation parameters

Determining evaluation parameters involves the Requirements Team identifying the factors that are key to the success of the RM process. One or more causes that contribute to the success of the key factor are associated with each key factor. Both the key factor and its associated cause(s) have a metric. The EDS CalWIN Manager ensures the metrics are recorded and tracked for the project.

Sample Key Success Factor (KSF): Requirements are complete

Associated Metric: Number of times that additional information had to be requested from Counties after the requirement was validated

Sample (KSF) Causes: Amount of training

Associated Metric: Percentage of people trained in the techniques used

1.6 Build plan

Building the RM plan involves the Requirements Team working with the EDS CalWIN Manager to incorporate activities from the RM process, resource assignments and planned completion dates into the overall Project Control Document (PCD).

1.7 Review plan with County management and affected groups

Reviewing the planned RM activities with the WCDS CalWIN Deputy Manager involves ensuring an understanding of the activities to be performed for RM and the expectations for County participation. Affected groups including the CM Team and the QA Team review the RM activities in the PCD to ensure completeness and cooperation with their respective plans.

1.8 Manage plan

Managing the plan involves the Requirements Team and EDS CalWIN Manager periodically or on an event-driven basis reviewing the RM activities in the Project Control Document (PCD) for refinements and noting the progress that is being made in performing RM activities. Measurements are taken and used in evaluating RM activities. Senior management reviews of RM activities are also conducted on a periodic basis. Upon completion of all project RM activities, the EDS CalWIN Manager will ensure "lessons learned" have been contributed to the post project review.

Inputs

- Project Control Document (PCD) including Project Summary and Scope
- Affected Group Plans

Outputs

- Techniques, Tools, and Standards
- RM Metrics
- Out-of-Scope Issues
- Project Control Document (PCD) – updated

Agents

- EDS CalWIN Manager*
- WCDS CalWIN Deputy Manager
- Requirements Team
- Senior Management
- Affected Groups

Note: The agent identified with an asterisk (*) within each of the activity agent listings has the primary responsibility for ensuring the activity is accomplished.

2. Obtain Source Information

Purpose To collect the pieces of information from which the County requirements will be determined.

Description Obtaining source information involves soliciting requirements information from appropriate sources, ensuring information gathering techniques are effective, and preserving the obtained information for use in developing requirements and tracing a requirement to its origin.

2.1 Confirm information-gathering techniques
Confirming the proposed techniques for gathering information involves the Requirements Team working with the County Representatives to ensure the techniques, tools, and standards selected during the planning phase of requirements management are appropriate for gathering information from the identified County Representatives. The effectiveness of any requirements management techniques and work products will depend to a large degree on the Counties' comfort with them.

2.2 Execute information-gathering techniques
Performing information gathering involves the Requirements Team preparing County Representatives regarding what is to be accomplished, what is expected of them, what types materials they should bring (i.e. forms, policies, etc.), and why they were selected. This activity also involves the Requirements Team confirming with the County Representatives the scheduling in the Project Control Document (PCD) for the preparation and performance of information gathering. In this activity, the Requirements Team obtains the source information to be used in defining requirements and resolves any issues with the requirements captured in the Requirements Management Database. The Requirements Team summarizes source information into statements of need and confirms with the County Representatives that information obtained by the Requirements Team accurately reflects their contributions.

2.3 Maintain obtained information
Maintaining obtained information involves the Requirements Team providing a date and context under which information was obtained, uniquely identifying the articles of obtained information, and documenting the sources responsible for providing the information. This will enable the Requirements Team to trace a requirement statement to its sources.

Inputs
- Techniques, Tools, and Standards
- Project Control Document (PCD)
- Requirements Management Database
- Requirement Issues

Outputs
- Techniques, Tools, and Standards – updated
- Project Control Document (PCD) – updated
- Requirements Management Database – updated
- Statements of Need
- Requirements Source Information

Agents

- Requirements Team*
- County Representatives

Note: The agent identified with an asterisk (*) within each of the activity agent listings has the primary responsibility for ensuring the activity is accomplished.

3. Develop Requirements

Purpose To analyze and grasp the implications of the Counties' requirements. To transform County statements into solid requirements.

Description Developing requirements involves understanding what the Counties are saying about the technical requirements using mental models. Non-technical requirements (i.e., delivery dates, product/service components to be delivered, acceptance criteria, contractual terms and conditions) that affect and determine the activities of the project are derived through reviewing agreement type documents.

3.1 Extract requirements

Extracting requirements involves the Requirements Team analyzing statements of need and the associated source information to derive one or more requirement statements. For technical requirements, the Requirements Team formulates statements of need and source information into concise requirement statements with ambiguities removed. These requirement statements are documented and assigned an identifier by the Requirements Team. The Requirements Team then records the mapping of the requirement statement identifier to the statement of need and source information identifiers that contributed to its development. Traceability is provided from the requirement statements to the sources. The EDS CalWIN Manager extracts non-technical requirements from agreements such as the contract. These non-technical requirements are recorded in the Project Control Document (PCD) in terms of delivery dates and milestones that must be satisfied.

3.2 Determine appropriateness of requirements

Note: This sub-activity is most suited to ITP based requirements.

Determining appropriateness of requirements involves the Requirements Team ensuring that each extracted requirement maps to an ITP requirement, if appropriate. If the extracted requirement is found to be out of scope, the Obtain Source Information activity is applied in an attempt to reach consensus on the requirement's appropriateness to the scope of the project. If consensus is reached and depending on the outcome of the discussion, the requirement is accepted, referred to the Change Management process, or dropped. If consensus cannot be reached, the requirement will be referred to the Issues Management process.

3.3 Ensure consistency and completeness

Ensuring consistency and completeness involves the Requirements Team resolving any contradictions in requirements statements, identifying this requirement as a higher-level or detail-level one to any related requirements, and re-applying the Obtain Source Information activity until issues are addressed and the requirement is complete. This sub-activity also involves the Product Engineering Group reviewing the requirement to ensure that it is complete (from a development perspective) and that it can be implemented.

3.4 Define verification criteria (conditional)

Defining verification criteria involves the Product Engineering Group and the Test Team associating with the requirement statement a procedure for verifying that it has been satisfied. Conditional: This sub-activity is performed only when the requirement is fully defined, which may be at a later phase in the project.

3.5 Determine relative importance of requirements

Note: This sub-activity is most suited to Change Requests.

Determining the cost/benefit of requirements involves the Requirements Team, based on input from the County Representatives, identifying the value-added impact of this requirement on the Counties and defining the importance of this requirement relative to other requirements to determine a relative importance rating. The relative importance rating and the level of effort estimates will be used by the EDS CalWIN Manager to establish priorities and allocate resources.

Inputs

- Techniques, Tools, and Standards
- Project Control Document (PCD)
- Statements of Need
- Requirements Source Information
- Agreement Documents

Outputs

- Project Control Document (PCD) - updated
- Requirement Statements
- Requirement Statement to Statement of Need and Source Information Mapping
- Requirement Issues
- Requirement Verification Criteria/Procedure
- Requirement Relative Importance Rating
- Requirement Level of Effort Estimate

Agents

- Requirements Team*
- EDS CalWIN Manager
- Product Engineering Group
- Test Team
- County Representatives

Note: The agent identified with an asterisk (*) within each of the activity agent listings has the primary responsibility for ensuring the activity is accomplished.

4. Validate Requirements

Purpose To confirm a mutual understanding of all aspects of the requirements with the Counties.

Description Validating requirements involves playing back the Counties' input and responses to requests for information. It utilizes techniques and levels of detail appropriate to the Counties such as explanatory diagrams to ensure mutual understanding of the requirements.

4.1 Determine requirements to be validated and determine participants
Determining validation requirements and participants involves the Requirements Team utilizing the requirement relative importance rating and level of effort estimate to prioritize and identify those requirements that are ready to go forward for validation with the Counties and assembling the appropriate EDS and County participants. Although it may make sense to supplement the participant list, the County Representatives involved in the information-gathering sessions, the Requirements Team and the Product Engineering Group that will develop products and services utilizing the requirements must participate.

4.2 Determine levels of detail
Determining levels of detail involves the Requirements Team tailoring the information presented to the validation participants based on the needs of the particular audience members.

4.3 Confirm validation techniques
Confirming validation techniques involves the Requirements Team ensuring the project techniques initially selected are appropriate to the requirement validation participants.

4.4 Perform validation
Performing validation involves the Requirements Team facilitating the establishment of a common set of expectations between the Counties and the EDS CalWIN Project Team through review and confirmation of the requirement statements. Corrections to the requirement statements are documented and validated. Any identified issues will be resolved through repeated iterations of the requirements management activities of Obtain Source Information through Validate Requirements.

Inputs
- Techniques, Tools, and Standards
- Requirement Statements
- Requirement Relative Importance Rating
- Requirement Level of Effort Estimate

Outputs
- Validated Requirements
- Requirement Issues

Agents
- Requirements Team*
- County Representatives
- Product Engineering Group

Note: The agent identified with an asterisk (*) within each of the activity agent listings has the primary responsibility for ensuring the activity is accomplished.

5. Incorporate Allocated Requirements

Purpose To align allocated requirements and any changes with the activities of estimating, planning/committing, performing, and tracking of the project.

Description Reviewing allocated requirements involves the Product Engineering Group supplying estimates for the necessary resources to complete the requirement and confirming the configuration items that the requirement impacts. This information is used to create the DED for the allocated work product. During this activity the validated requirements are logged in the Requirements Management Database.

5.1 Determine estimate of resources
Determining estimates and resource requirements involves the Product Engineering Group analyzing the requirement providing estimates of the necessary resources to complete the implementation of the requirement.

5.2 Determine configuration item impacts
Confirming configuration items impacted by the requirement involves the Product Engineering Group and the CM Team identifying project product or service components that will be impacted by the implementation of the requirement.

5.3 Log validated requirement to requirements management database
Logging the validated requirements in Requirements Management Database involves the Requirements Team entering the validated requirement information into the database.

5.4 Allocate validated requirement to appropriate work product
Allocating the validated requirements to the appropriate work product involves the EDS CalWIN Manager incorporating the requirements into the appropriate DED.

Inputs
- Validated Requirements
- Configuration Items

Outputs
- Implementation Estimates and Resource Requirements
- Requirement Statement to Configuration Item Mapping
- Allocated Requirements

Agents
- Product Engineering Group
- CM Team
- Requirements Team
- EDS CalWIN Manager*

Note: The agent identified with an asterisk (*) within each of the activity agent listings has the primary responsibility for ensuring the activity is accomplished.

6. Evaluate and Refine Requirements Management Process

Purpose To identify lessons learned (successes, problems, and opportunities for improvement), implement process improvements, and ensure institutionalization of the process.

Description At the completion of the process a review will take place to identify lessons learned and improvement that can be made to the process. The Requirements Management process will also be periodically reviewed according to the project's Quality Assurance Plan and using the Quality Assurance Process.

1.1 Evaluate lessons learned

Evaluation of lessons learned takes place at the completion of activity 5 – Incorporate Allocated Requirements. The EDS CalWIN Manager will conduct a post-process review to determine lessons learned and identify improvements that can be made to the process. The EDS CalWIN Manager will forward the lesson learned to the QA Team for inclusion in the QA tracking and reporting tools.

1.2 Implement process improvements

Implementation of process improvements is the responsibility of the Process Owner. The EDS CalWIN Manager will forward process improvements identified during the evaluation of lessons learned to the Process Owner for incorporation into the process.

1.3 Audit the process

An audit of the Requirements Management process will be conducted periodically by the QA Team using the project's Quality Assurance Plan and Process. QA audits assure leaders that a project's activities and work products conform to the process, procedures, requirements, and standards. The QA process audit findings also identify nonconformance that may put future projects at risk. The findings are collected over time and used as input to future process improvement efforts. See the QA Plan and QA Process for more details.

Inputs

- Requirements Management Process
- Input from Individuals Involved in Process

Outputs

- Lessons Learned
- Requirements Management Process (improved)

Agents

- EDS CalWIN Manager*
- Process Owner (PMO)
- QA Team

Note: The agent identified with an asterisk (*) within each of the activity agent listings has the primary responsibility for ensuring the activity is accomplished.

Supporting Information

Usage and Tailoring Guidelines

In order to achieve the goals that were defined for this process, it is imperative that improvements are encouraged from throughout the CalWIN Project Team; but it is also imperative that these improvements are evaluated and implemented in a controlled manner. In order to accomplish this process, activities one Plan/Track Requirements Management through six Incorporate Allocated Requirements must be performed. Requirements management must be adaptable to the unique needs of the WCDS CalWIN Organization projects and their particular situations, but the purpose of each activity must be achieved, regardless of the tailoring.

One adaptation occurs in the selection of requirements management techniques, supporting tools, and associated training, the development of presentation materials, and the specification for the format of the requirement statements. The selected techniques and work products are dependent upon the County environment and the requirement determiners' expertise. The effectiveness of any requirements management techniques and work products will depend to a large degree on the Counties' comfort with them.

Another adaptation occurs in defining the groups responsible for requirement determination and the project phase in which the requirements are allocated. The allocation of the requirements to product or service components may be performed by a group external to the Project Team, and the Project Team may have no direct control of this allocation. Requirement allocation may occur during the proposal phase. Within the constraints of the project, the Project Team takes appropriate steps to ensure that the requirements allocated to components, which they are responsible for addressing, are documented and controlled.

Metrics

The process metrics that will be collected for this work element are described in the following matrix.

Work Product Metrics

Metric	Frequency	Responsibility	Location
Number of requirements implemented	Per Deliverable	CM Team	

Process Metrics

Metric	Frequency	Responsibility	Location
Estimated and actual man-hours for requirements management	Monthly	EDS CalWIN Manager	
Estimated and actual schedule for execution of RM activities to accomplish County validated requirements	Monthly	Requirements Team	
Number of changes due to faulty requirements within a project determined number of months after delivery	Per Deliverable	Requirements Team	

Verification

The following items will be used as objective evidence that this process is being accomplished as documented:

- Requirement Statements
- Source Information
- Project Control Document (PCD)
- Deliverable Expectation Document (DED)
- Others as documented in the QA Team review criteria for RM

Appendix A – Database Attributes

All changes must be recorded in the centralized database. This is an automated tool designed to support the Requirements Management process. The attributes of a requirement are listed in the table below.

Name	Description	Sample Data
Team	Team responsible for fulfilling the requirement	Network Services Distributed Services Enterprise Computing Software Services Capacity Planning PMO Business Office Operations Services Services and Referrals EDBC/SFU Data Collection Reporting Issuance Interfaces/Alerts Notices Application Technical Group Chief Technologis t
Status	Status of the requirement	Open -- Default Satisfied Omitted
Category	Indicates whether the requirement is included in one or multiple deliverables	One-time – Default Recurring
Origin	Origin of the requirement	Baseline Change Management Contract Design Session
Owner		Consortium -- Default Alameda Contra Costa Fresno Orange Placer Sacramento San Diego San Francisco San Luis Obispo San Mateo Santa Barbara Santa Clara Santa Cruz Solano

Name	Description	Sample Data
		Sonoma Tulare Ventura Yolo EDS Deloitte Sequent Unisys
Special Attention	Identifies requirements that require special attention (i.e. including but not limited to requirements)	Yes No